TEXT SEARCH

```
=> d his l91

     (FILE 'HCAPLUS' ENTERED AT 15:25:30 ON 21 SEP 2009)
L91          16 S L90 OR L80

=> d que l91
L2           13 SEA FILE=REGISTRY SPE=ON  ABB=ON  PLU=ON  (111-65-9/BI
                OR 11138-49-1/BI OR 1310-73-2/BI OR 1343-98-2/BI OR
                142-82-5/BI OR 14378-12-2/BI OR 26635-64-3/BI OR
                31394-54-4/BI OR 6484-52-2/BI OR 7440-06-4/BI OR
                7631-86-9/BI OR 77-98-5/BI OR 9004-67-5/BI)
L3            1 SEA FILE=REGISTRY SPE=ON  ABB=ON  PLU=ON  11138-49-1/RN
L5            2 SEA FILE=REGISTRY SPE=ON  ABB=ON  PLU=ON  L2 AND
                SI/ELS
L8          644 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  "ZEOLITE
                ZSM-12"+MAX/CT/CT
L9          644 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  "MTW ZEOLITES"
                +MAX/CT
L10        1110 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  ZSM(A)12
L11         309 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  MTW+MAX/CT
L12         952 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L8 OR L9 OR
                L11
L13         991 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L10(2A)ZEOL?
L14        1299 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L12 OR L13
L16        1399 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  .LTOREQ. 0,1
                MM
L17        1399 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  .LTOREQ. 0.1
                MM
L18        1399 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L16 OR L17
L19           2 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L18 AND L14
L20       10184 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  SPECIFIC
                VOLUME
L21          43 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L20(3A)30
L22          15 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L20(3A)200
L23           1 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L21 AND L22
L24         118 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  MM3(W)G
L25           1 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L24 AND (L21
                OR L22)
L26          21 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  .LTOREQ."4000
                BAR" OR LTOREQ(2A)(4000(2A)BAR)
L27           0 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L26 AND L18
L28           0 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L26 AND L25
L29         222 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  "4000 BAR" OR
                (4000(2A)BAR)
L30           1 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L29 AND L18
L31        4526 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  (MERCURY OR
                HG)(2A)PORO?
L32           2 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L31 AND L29
L33           1 SEA FILE=REGISTRY SPE=ON  ABB=ON  PLU=ON  SILICA/CN
L34           1 SEA FILE=REGISTRY SPE=ON  ABB=ON  PLU=ON  ALUMINA/CN
L35      112706 SEA FILE=REGISTRY SPE=ON  ABB=ON  PLU=ON  ?SILICON?/CNS

L40        5251 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L3
L41      468529 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L5
L42     1522028 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L35
L43      880935 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L33 OR SILICA
                OR SIO2 OR O2SI
L44         579 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L14 AND ((L41
                OR L42 OR L43))
L45         133 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L14(L)((L41
                OR L42 OR L43))
L46             QUE  SPE=ON  ABB=ON  PLU=ON  L3 OR L40 OR L34 OR (ALUMI
                NUM OR ALUMINIUM OR AL)(A)(OXIDE OR O3) OR ALUMINA OR A
                L2O3
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L47          71 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L14(L)L46
L48          57 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L45 AND L47
L49         397 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L14 AND L46
L50         318 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L49 AND L44
L51           3 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L23 OR L30 OR
                L32 OR L19
L52           2 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L50 AND L51
L53           1 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L48 AND L51
L54           1 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L50 AND L20
L55           2 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L50 AND L18
L56           1 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L50 AND (L26
                OR L29)
L60           1 SEA FILE=REGISTRY SPE=ON  ABB=ON  PLU=ON  77-98-5/RN
L61        2413 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L60
L62             SEL  PLU=ON  L60 1- NAME :       1 TERM
L63        1997 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L62
L64        2625 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L61 OR L63
L65          29 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L64 AND L14
L70       43855 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  POROSITY/CT
L71           2 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L65 AND L70
L72       42059 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  (PORE OR
                RADIUS OR RADII OR DIAM?) AND ((4 OR 5 OR 6 OR 7 OR 8
                OR 9 OR 10)(2A)(NM OR NANOMET? OR (NANO(W)(METER OR
                METRE OR M))))
L73          26 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L72 AND L14
L75           8 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L73 AND L50
L76           6 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L75 AND L13
L77          10 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  (L51 OR L52
                OR L53 OR L54 OR L55 OR L56) OR L71 OR L76
L78             QUE  SPE=ON  ABB=ON  PLU=ON  PY=<2003 NOT P/DT
L79             QUE  SPE=ON  ABB=ON  PLU=ON  (PY=<2003 OR PRY=<2003 OR
                AY=<2003 OR MY=<2003 OR REVIEW/DT) AND P/DT
L80           6 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L77 AND (L78
                OR L79)
L81          55 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L65 OR L73
L82             QUE  SPE=ON  ABB=ON  PLU=ON  POROS? OR POROUS?
L83          55 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L14 AND L81
L84          15 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L83 AND L82
L85           6 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L84 AND L64
L86           1 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L83 AND ((L18
                OR L19 OR L20 OR L21 OR L22 OR L23 OR L24 OR L25 OR
                L26 OR L27 OR L28 OR L29 OR L30 OR L31 OR L32))
L87           6 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L85 OR L86
L88          28 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L83 AND (L70
                OR L72)
L89          32 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  (L85 OR L86
                OR L87 OR L88)
L90          14 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L89 AND (L78
                OR L79)
L91          16 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L90 OR L80


=> d his l128

     (FILE 'INSPEC' ENTERED AT 16:15:18 ON 21 SEP 2009)
L128          4 S L127 AND (L78 OR L79)

=> d que l128
L78             QUE  SPE=ON  ABB=ON  PLU=ON  PY=<2003 NOT P/DT
L79             QUE  SPE=ON  ABB=ON  PLU=ON  (PY=<2003 OR PRY=<2003 OR
                AY=<2003 OR MY=<2003 OR REVIEW/DT) AND P/DT
L93           8 SEA FILE=INSPEC SPE=ON  ABB=ON  PLU=ON  ZSM(A)12
L94          41 SEA FILE=INSPEC SPE=ON  ABB=ON  PLU=ON  MTW
L95         539 SEA FILE=INSPEC SPE=ON  ABB=ON  PLU=ON  ZSM
L96           8 SEA FILE=INSPEC SPE=ON  ABB=ON  PLU=ON  "ZSM-12"
L100       2512 SEA FILE=INSPEC SPE=ON  ABB=ON  PLU=ON  ZEOLITES/CT
L101      75830 SEA FILE=INSPEC SPE=ON  ABB=ON  PLU=ON  NANOSTRUCTURED
```

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                MATERIALS/CT
L102       28452 SEA FILE=INSPEC SPE=ON  ABB=ON  PLU=ON  POROUS
                MATERIALS/CT
L103         150 SEA FILE=INSPEC SPE=ON  ABB=ON  PLU=ON  MOLECULAR
                SIEVES/CT
L109       23705 SEA FILE=INSPEC SPE=ON  ABB=ON  PLU=ON  4.0E-09 M -
                10.0E-09 M /SIZ
L111          12 SEA FILE=INSPEC SPE=ON  ABB=ON  PLU=ON  L100 AND L109
L113           3 SEA FILE=INSPEC SPE=ON  ABB=ON  PLU=ON  L111 AND L101
L114           4 SEA FILE=INSPEC SPE=ON  ABB=ON  PLU=ON  L111 AND L102
L118      438774 SEA FILE=INSPEC SPE=ON  ABB=ON  PLU=ON  SI/ET
L119      324336 SEA FILE=INSPEC SPE=ON  ABB=ON  PLU=ON  AL/ET
L120          12 SEA FILE=INSPEC SPE=ON  ABB=ON  PLU=ON  L113 OR L114
                OR L111
L121           2 SEA FILE=INSPEC SPE=ON  ABB=ON  PLU=ON  L120 AND L118
                AND L119
L122           6 SEA FILE=INSPEC SPE=ON  ABB=ON  PLU=ON  L111 AND (L101
                OR L102 OR L103)
L123           0 SEA FILE=INSPEC SPE=ON  ABB=ON  PLU=ON  L96 AND L109
L124           0 SEA FILE=INSPEC SPE=ON  ABB=ON  PLU=ON  L93 AND L109
L125           0 SEA FILE=INSPEC SPE=ON  ABB=ON  PLU=ON  L94 AND L109
L126           3 SEA FILE=INSPEC SPE=ON  ABB=ON  PLU=ON  L95 AND L109
L127          13 SEA FILE=INSPEC SPE=ON  ABB=ON  PLU=ON  L120 OR L121
                OR (L122 OR L123 OR L124 OR L125 OR L126)
L128           4 SEA FILE=INSPEC SPE=ON  ABB=ON  PLU=ON  L127 AND (L78
                OR L79)


=> dup rem l91 l128
FILE 'HCAPLUS' ENTERED AT 16:51:17 ON 21 SEP 2009
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2009 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'INSPEC' ENTERED AT 16:51:17 ON 21 SEP 2009
Compiled and produced by the IET in association WITH FIZ KARLSRUHE
COPYRIGHT 2009 (c) THE INSTITUTION OF ENGINEERING AND TECHNOLOGY (IET)
PROCESSING COMPLETED FOR L91
PROCESSING COMPLETED FOR L128
L130          20 DUP REM L91 L128 (0 DUPLICATES REMOVED)
                ANSWERS '1-16' FROM FILE HCAPLUS
                ANSWERS '17-20' FROM FILE INSPEC
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TEXT SEARCH RESULTS

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=> d l130 1-16 ibib ed abs hitstr hitind

L130 ANSWER 1 OF 20  HCAPLUS  COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER:        2006:30921  HCAPLUS  Full-text
DOCUMENT NUMBER:         144:110975
TITLE:                   Process to prepare a lubricating base oil and
                         its use
INVENTOR(S):             Duhoux, Etienne; Germaine, Gilbert Robert
                         Bernard; Sajad Hussein, Yunus; Smithers, Janet
                         Marian; Steenge, Wiecher Derk Evert; Wedlock,
                         David John
PATENT ASSIGNEE(S):      Shell Internationale Research Maatschappij
                         B.V., Neth.
SOURCE:                  PCT Int. Appl., 36 pp.
                         CODEN: PIXXD2
DOCUMENT TYPE:           Patent
LANGUAGE:                English
FAMILY ACC. NUM. COUNT:  2
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.        DATE
     ---------------      ----   --------    --------------------
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     WO 2006003119         A1    20060112    WO 2005-EP52955
                                                                   2005
                                                                   0623
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ,
             CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG,
             ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
             KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,
             MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG,
             PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ,
             TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR,
             HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK,
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             SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ,
             TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
     WO 2005000999         A1    20050106    WO 2004-EP51248
                                                                   2004
                                                                   0625
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         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ,
             CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG,
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             KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
             MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL,
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             CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU,
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     EP 1791931            A1    20070606    EP 2005-766833
                                                                   2005
                                                                   0623
         R:  AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR,
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             SK, TR
     CN 101044226          A     20070926    CN 2005-80021084
                                                                   2005
                                                                   0623
     JP 2008503629         T     20080207    JP 2007-517301
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				2005 0623
US 20090159492	A1	20090625	US 2006-630497	2006 1221
PRIORITY APPLN. INFO.:			WO 2004-EP51248	A 2004 0625
			EP 2004-258134	A 2004 1224
			EP 2003-291598	A 2003 0627
			<--	
			WO 2005-EP52955	W 2005 0623

ED Entered STN: 12 Jan 2006

AB Process to prepare an iso-paraffinic base oil having an improved seal swelling properties by subjecting a mixture of (i) a petroleum derived feed having a pour point <-5°, an aromatic content of between 0 and 20% and a naphthenic compound content of between 15 and 90% and (ii) a Fischer-Tropsch derived feed to a catalytic pour point reducing treatment and wherein the content of the petroleum derived feed (i) in the mixture is 5-50%. The invention is also directed to the use of the base oils thus obtained in gear oil and hydraulic oil application.

IC ICM C10G045-58
ICS C10G065-12

CC 51-8 (Fossil Fuels, Derivatives, and Related Products)

IT Pore size
(of zeolite, 0.35 - 0.8 nm; process to prepare lubricating base oil and its use)

IT Group VIII elements
Zeolite ZSM-12
Zeolites (synthetic), uses
RL: CAT (Catalyst use); USES (Uses)
(process to prepare lubricating base oil and its use)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L130 ANSWER 2 OF 20 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2004:841729 HCAPLUS Full-text
DOCUMENT NUMBER: 141:298432
TITLE: Manufacture of ZSM-12 type zeolites and their use as catalysts for the hydroisomerization of higher paraffins
INVENTOR(S): Burgfels, Goetz; Kurth, Volker; Reimer, Alfred; Schmidt, Friedrich; Wellach, Stephan
PATENT ASSIGNEE(S): Sued-Chemie AG, Germany
SOURCE: Ger. Offen., 17 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10314753	A1	20041014	DE 2003-10314753	2003 0401
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WO 2004087315 A1 20041014 WO 2004-EP3283
2004
0327
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CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, EG, ES,
FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG,
MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT,
RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT,
TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW,
AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY,
CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC,
NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM,
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
EP 1608461 A1 20051228 EP 2004-723903
2004
0327
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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,
MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ,
EE, HU, PL, SK
JP 2007534578 T 20071129 JP 2006-504894
2004
0327
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US 20080035525 A1 20080214 US 2007-551606
2007
0117
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PRIORITY APPLN. INFO.: DE 2003-10314753 A
2003
0401
<--
WO 2004-EP3283 W
2004
0327

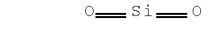
ED Entered STN: 15 Oct 2004

AB ZSM-12 type zeolites are manufactured by reacting an alumina source, a silica source, and an alkali or alkaline earth metal source in the presence of tetraethylammonium as a template. The zeolites can be cation exchanged, e.g. by treating with an ammonium compound or an acid. The zeolites are agglomerated using binders. The prepared zeolites have a primary crystallite size of ≤ 0, 1 .mu.m, and a sp. volume of 30-200 mm3/g as determined by mercury porosimetry at 4000 bar. The ZSM-12 type zeolites are loaded with an catalytically active noble metal, preferably Pt, and is used for the hydroisomerization of higher n-paraffins in the presence of aromatic compds.

IT 7631-86-9, Silica, uses 14378-12-2
, Steatite
RL: NUU (Other use, unclassified); USES (Uses)
(binder; manufacture of ZSM-12 type
zeolites and their use as catalysts for
hydroisomerization of higher paraffins)

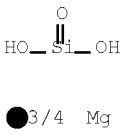
RN 7631-86-9 HCAPLUS

CN Silica (CA INDEX NAME)

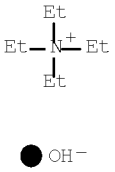


RN 14378-12-2 HCAPLUS

CN Steatite (Mg3H2(SiO3)4) (9CI) (CA INDEX NAME)



IT 77-98-5, Tetraethylammonium hydroxide
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
(manufacture of ZSM-12 type zeolites and their use as catalysts for hydroisomerization of higher paraffins)
RN 77-98-5 HCAPLUS
CN Ethanaminium, N,N,N-triethyl-, hydroxide (1:1) (CA INDEX NAME)



IT 1343-98-2, Silicic acid 11138-49-1, Sodium aluminate
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(manufacture of ZSM-12 type zeolites and their use as catalysts for hydroisomerization of higher paraffins)
RN 1343-98-2 HCAPLUS
CN Silicic acid (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 11138-49-1 HCAPLUS
CN Aluminum sodium oxide (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IC ICM C01B039-42
ICS B01J029-74; C07C005-22
CC 51-6 (Fossil Fuels, Derivatives, and Related Products)
Section cross-reference(s): 49, 67
IT Zeolite ZSM-12
RL: CAT (Catalyst use); CPS (Chemical process); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PRP (Properties); PREP (Preparation); PROC (Process); USES (Uses)
(ammonium-exchanged; manufacture of ZSM-12 type zeolites and their use as catalysts for hydroisomerization of higher paraffins)
IT Petroleum hydrotreating catalysts
Petroleum refining
(hydroisomerization; manufacture of ZSM-12 type zeolites and their use as catalysts for hydroisomerization of higher paraffins)
IT Alkanes, reactions

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(hydroisomerization; manufacture of ZSM-12 type zeolites and their use as catalysts for hydroisomerization of higher paraffins)

IT Porosity
(manufacture of ZSM-12 type zeolites and their use as catalysts for hydroisomerization of higher paraffins)

IT 7631-86-9, Silica, uses 9004-67-5, Methyl cellulose 14378-12-2, Steatite
RL: NUU (Other use, unclassified); USES (Uses)
(binder; manufacture of ZSM-12 type zeolites and their use as catalysts for hydroisomerization of higher paraffins)

IT 111-65-9, n-Octane, reactions 142-82-5, n-Heptane, reactions
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(hydroisomerization; manufacture of ZSM-12 type zeolites and their use as catalysts for hydroisomerization of higher paraffins)

IT 7440-06-4, Platinum, uses
RL: CAT (Catalyst use); USES (Uses)
(manufacture of ZSM-12 type zeolites and their use as catalysts for hydroisomerization of higher paraffins)

IT 26635-64-3P, Isooctane 31394-54-4P, Iso-heptane
RL: CPS (Chemical process); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PREP (Preparation); PROC (Process)
(manufacture of ZSM-12 type zeolites and their use as catalysts for hydroisomerization of higher paraffins)

IT 77-98-5, Tetraethylammonium hydroxide
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
(manufacture of ZSM-12 type zeolites and their use as catalysts for hydroisomerization of higher paraffins)

IT 1310-73-2, Sodium hydroxide, reactions 1343-98-2, Silicic acid 6484-52-2, Ammonium nitrate, reactions 11138-49-1, Sodium aluminate
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(manufacture of ZSM-12 type zeolites and their use as catalysts for hydroisomerization of higher paraffins)

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L130 ANSWER 3 OF 20 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2003:603852 HCAPLUS Full-text
DOCUMENT NUMBER: 139:135891
TITLE: Catalytic cracking of naphtha over zeolites, especially ZSM-5, for manufacture of high-octane naphtha
INVENTOR(S): Steffens, Todd R.; Ladwig, Paul K.
PATENT ASSIGNEE(S): Exxonmobil Chemical Patents Inc., USA
SOURCE: U.S., 12 pp., Cont.-in-part of U.S. 6,069,287.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 21

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6602403	B1	20030805	US 1999-437161	1999 1110
			<--	
US 6069287	A	20000530	US 1998-73085	1998 0505
			<--	
CN 1171835	C	20041020	CN 1999-805814	1999 0427
			<--	
TW 589228	B	20040601	TW 1999-88107308	1999 0731
			<--	
WO 2001034729	A1	20010517	WO 2000-US29866	2000 1027
			<--	
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1252258	A1	20021030	EP 2000-975481	2000 1027
			<--	
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
MX 2002004721	A	20020830	MX 2002-4721	2002 0510
			<--	
IN 2002DN00489	A	20040228	IN 2002-DN489	2002 0510
			<--	
ZA 2002003743	A	20040312	ZA 2002-3743	2002 0510
			<--	
PRIORITY APPLN. INFO.:			US 1998-73085 A2	1998 0505
			<--	
			US 1999-437161 A	1999 1110
			<--	
			WO 2000-US29866 W	2000 1027
			<--	

ED Entered STN: 06 Aug 2003

AB High-octane naphtha is manufactured by catalytic cracking of a naphtha, b. 65-450°F, over a catalyst consisting of 10-80 weight% of a zeolite, with average pore diameter .ltorsim.0. 7 nm, at 500-650°C, hydrocarbon partial pressure 10-40 psia, hydrocarbon residence time 1-10 s, and a catalyst-feed weight ratio of 2-10:1, in which .ltorsim.20 weight% of the feed paraffins are converted to C≤4. A preferred zeolite is ZSM-5, although other suitable zeolites include MFI, MFS, MEL, MTW, EUO, MTT, HEU, FER, and TON-structure zeolites, and other ZSM-type zeolites, such as ZSM-12, ZSM-22, ZSM-23, ZSM-34, ZSM-35, ZSM-38, ZSM-48, and ZSM-50.
IC ICM C10G011-05
INCL 208120010; 208134000; 208135000; 208141000
CC 51-9 (Fossil Fuels, Derivatives, and Related Products)
IT Ferrierite-type zeolites
Zeolite ZSM-11
Zeolite ZSM-12
Zeolite ZSM-22
Zeolite ZSM-23
Zeolite ZSM-35
Zeolite ZSM-5
RL: CAT (Catalyst use); USES (Uses)
(catalytic cracking of naphtha over zeolites, especially ZSM-5, for manufacture of high-octane naphtha)
REFERENCE COUNT: 73 THERE ARE 73 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L130 ANSWER 4 OF 20 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2002:368363 HCAPLUS Full-text
DOCUMENT NUMBER: 136:389760
TITLE: Manufacture of zeolite membrane comprising a crystal layer having molecular sieve properties
INVENTOR(S): Hoerpel, Gerhard; Hying, Christian; Kuppinger, Franz-Felix; Penth, Bernd
PATENT ASSIGNEE(S): Creavis Gesellschaft fuer Technologie und Innovation m.b.H., Germany
SOURCE: PCT Int. Appl., 43 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002038258	A1	20020516	WO 2001-EP11746	2001 1011 <--
W: CA, CZ, JP, NO, PL, US RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
DE 10055612	A1	20020529	DE 2000-10055612	2000 1109 <--
PRIORITY APPLN. INFO.:			DE 2000-10055612 A	2000 1109 <--

ED Entered STN: 18 May 2002
AB Frequently, polymer-based membranes are used but polymers are relatively unstable to solvents and high temps. The inorg. membrane comprises (as the separating layer) the layer from zeolite crystals that have mol. sieve properties, e.g., NaA, CaA, Erionite, ZSM-5, ZSM-11, and others. The separating layer has pores of .ltoreq.10 nm. The novel inorg. membrane is composed of inorg. components and is characterized by a high

stability to acids and high temps. A carrier material is treated with the components of a zeolite synthesis solution and/or with a synthesis solution for amorphous mixed metal oxides, silicalites, aluminum silicates or aluminum phosphates. The carrier material is made of metal, glass, or ceramic in the form of fabric, sintered fibers, or sintered powders. The separating layer selected from zeolites, amorphous mixed metal oxides, silicalites, aluminum silicates or aluminum phosphates is synthesized onto the ceramic film in said support material. The membrane can be used for various chemical or phys. processes, such as separation of substances, especially for micro-filtration and nano-filtration membranes of gas separation

IT 1344-09-8, Sodium silicate 11138-49-1, Sodium aluminate
RL: TEM (Technical or engineered material use); USES (Uses)
(aqueous solution; manufacture of zeolite membrane comprising crystal layer having mol. sieve properties)

RN 1344-09-8 HCAPLUS
CN Silicic acid, sodium salt (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 11138-49-1 HCAPLUS
CN Aluminum sodium oxide (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 1344-28-1, Alumina, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(sol component, SC530SG, Alcoa; manufacture of zeolite membrane comprising crystal layer having mol. sieve properties)

RN 1344-28-1 HCAPLUS
CN Aluminum oxide (Al2O3) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IC ICM B01D071-02
ICS B01D067-00
CC 57-5 (Ceramics)
Section cross-reference(s): 66
IT Beta zeolites
L zeolites
Mordenite-type zeolites
Rare earth Y zeolites
X zeolites
Y zeolites
Zeolite CaA
Zeolite NaA
Zeolite NaX
Zeolite NaY
Zeolite ZSM-11
Zeolite ZSM-12
Zeolite ZSM-20
Zeolite ZSM-22
Zeolite ZSM-23
Zeolite ZSM-35
Zeolite ZSM-5
Zeolite omega
RL: TEM (Technical or engineered material use); USES (Uses)
(zeolite membrane; manufacture of zeolite membrane comprising crystal layer having mol. sieve properties)

IT 1344-09-8, Sodium silicate 11138-49-1, Sodium aluminate
RL: TEM (Technical or engineered material use); USES (Uses)
(aqueous solution; manufacture of zeolite membrane comprising crystal layer having mol. sieve properties)

IT 1344-28-1, Alumina, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(sol component, SC530SG, Alcoa; manufacture of zeolite membrane comprising crystal layer having mol. sieve properties)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L130 ANSWER 5 OF 20 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2003:16949 HCAPLUS Full-text
DOCUMENT NUMBER: 138:306368
TITLE: Skeletal isomerization of 1-hexene to isohexenes over zeolite catalysts
AUTHOR(S): Wu, Zhihua; Wang, Qingxia; Xu, Longya; Xie, Sujuan
CORPORATE SOURCE: Dalian Institute of Chemical Physics, Chinese Academy of Sciences, Dalian, 116023, Peop. Rep. China
SOURCE: Studies in Surface Science and Catalysis (2002), 142A(Impact of Zeolites and Other Porous Materials on the New Technologies at the Beginning of the New Millennium), 747-754
CODEN: SSCTDM; ISSN: 0167-2991
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 09 Jan 2003
AB Several zeolite catalysts such as SAPO-11, ZSM-11, ZSM-12, etc. were selected to convert 1-hexene to branched hexenes in this work. Pore size of the zeolite catalyst plays an important role on the yield and the distribution of branched isohexenes. The zeolite catalysts with the pore size of 0.6 nm are optimum to produce dimethylbutenes. SAPO-11 zeolite is a suitable skeletal isomerization catalyst, especially in the production of Me pentenes. Under the following reaction conditions: WHSV 1.0 h-1, H2/hexene=8, T=250 °C, P=0.2 MPa, the yield of skeletal isohexenes remains above 80% at the prolonged time-on stream of 80 h, accompanying low C5-, C7+ products and low carbon deposition on the catalyst.
CC 51-11 (Fossil Fuels, Derivatives, and Related Products)
Section cross-reference(s): 45
IT Zeolite ZSM-11
Zeolite ZSM-12
RL: CAT (Catalyst use); USES (Uses)
(skeletal isomerization of 1-hexene to isohexenes over zeolite catalysts)
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

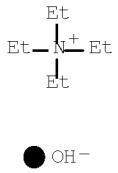
L130 ANSWER 6 OF 20 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2002:436585 HCAPLUS Full-text
DOCUMENT NUMBER: 137:234713
TITLE: Synthesis of pure-silica MTW powder and supported films
AUTHOR(S): Mitra, Anupam; Kirby, Christopher W.; Wang, Zhengbao; Huang, Limin; Wang, Huanting; Huang, Yining; Yan, Yushan
CORPORATE SOURCE: College of Engineering, Center for Environmental Research and Technology (CE-CERT), University of California, Riverside, CA, 92521, USA
SOURCE: Microporous and Mesoporous Materials (2002), 54(1-2), 175-186
CODEN: MIMMFJ; ISSN: 1387-1811
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 11 Jun 2002
AB High-silica MTW (ZSM-12) zeolite was synthesized by a new two-silica method in 8 h in hydroxide medium with tetraethylammonium hydroxide as structure-directing agent. Sodium metasilicate was used as the first silica source and shown to induce nucleation/crystallization of MTW in presence of a second silica source such as fumed silica, silica gel and colloidal silica. The synthesis products were characterized by techniques including SEM, x-ray diffraction, magic angle spinning NMR, FTIR, TGA/DTA, and nitrogen adsorption. The two-silica method was also used successfully to obtain MTW

films/membrane on various substrates such as nonporous Al-alloy, porous and nonporous stainless steel and porous α-alumina tubes.

IT 77-98-5, Tetraethylammonium hydroxide
RL: NUU (Other use, unclassified); USES (Uses)
(structure-directing agent; in synthesis of pure-silica MTW zeolite powder and supported films)

RN 77-98-5 HCAPLUS

CN Ethanaminium, N,N,N-triethyl-, hydroxide (1:1) (CA INDEX NAME)



CC 49-4 (Industrial Inorganic Chemicals)

IT Zeolite ZSM-12
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
(synthesis of pure-silica MTW zeolite powder and supported films)

IT 77-98-5, Tetraethylammonium hydroxide
RL: NUU (Other use, unclassified); USES (Uses)
(structure-directing agent; in synthesis of pure-silica MTW zeolite powder and supported films)

OS.CITING REF COUNT: 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD (8 CITINGS)

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L130 ANSWER 7 OF 20 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2001:288782 HCAPLUS Full-text

DOCUMENT NUMBER: 134:313245

TITLE: Manufacture of MTW-type binderless zeolite moulding body

INVENTOR(S): Oku, Tomoharu; Tsuneki, Hideaki

PATENT ASSIGNEE(S): Nippon Shokubai Kagaku Kogyo Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001114512	A	20010424	JP 1999-291883	1999 1014

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PRIORITY APPLN. INFO.: JP 1999-291883 1999 1014

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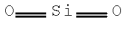
ED Entered STN: 24 Apr 2001

AB A binderless zeolite molded body is a metallo-silicate having MTW-type crystal structure. The zeolites have BET sp. surface area 100-500 m2/g (by N2-adsorption), pore diam . .gtoreq.4 nm (by mercury penetration), and pore volume 0.10-1.5 mL/g . The zeolites are manufactured by contacting saturated steam with a precursor having a

general formula Si(SDA)xM1yM2z where SDA is tetraalkylammonium having at least 2 Et groups bound to the nitrogen atom, M1 is an alkali metal, M2 is a metal in metallo-silicate, x is 0.001-1, yr is 0.0001-1, and z is 0-0.4.

IT 7631-86-9, Silica, processes
11138-49-1, Sodium aluminate
RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(in manufacture of MTW-type binderless zeolite molding body)

RN 7631-86-9 HCAPLUS
CN Silica (CA INDEX NAME)



RN 11138-49-1 HCAPLUS
CN Aluminum sodium oxide (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IC ICM C01B039-42
CC 49-4 (Industrial Inorganic Chemicals)

IT Zeolite ZSM-12
RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture of MTW-type binderless zeolite molding body)

IT 7631-86-9, Silica, processes
11138-49-1, Sodium aluminate
RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(in manufacture of MTW-type binderless zeolite molding body)

L130 ANSWER 8 OF 20 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2000:53469 HCAPLUS Full-text
DOCUMENT NUMBER: 132:80798
TITLE: Process for the removal of metal carbonyl from a gaseous stream
INVENTOR(S): Eijkhoudt, Roger; Geus, John Wilhelm; Smit, Cornelis Jacobus
PATENT ASSIGNEE(S): Shell Internationale Research Maatschappij BV, Neth.
SOURCE: PCT Int. Appl., 21 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000002644	A1	20000120	WO 1999-EP4916	19990705
			<--	
W: IN, JP, ZA				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1094881	A1	20010502	EP 1999-932872	19990705
			<--	
EP 1094881	B1	20040526		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002520423	T	20020709	JP 2000-558900	

				1999 0705 <--
AT 267641	T	20040615	AT 1999-932872	1999 0705 <--
ES 2221749	T3	20050101	ES 1999-932872	1999 0705 <--
US 6165428	A	20001226	US 1999-349319	1999 0708 <--
IN 2001CN00017	A	20070907	IN 2001-CN17	2001 0104 <--
ZA 2001000640	A	20020123	ZA 2001-640	2001 0123 <--
PRIORITY APPLN. INFO.:			EP 1998-305411 A	1998 0708 <--
			WO 1999-EP4916 W	1999 0705 <--

ED Entered STN: 23 Jan 2000

AB Process for the removal of metal carbonyl from gaseous streams in the presence of hydrogen sulfide and/or water using a hydrophobic porous adsorbent with an accessible pore volume for pore sizes between 0.55 and 4 nm of at least 0.005 mL/g.

IC ICM B01D053-46
ICS C10K001-20; C01B003-56; B01J020-06; B01J020-18

CC 51-11 (Fossil Fuels, Derivatives, and Related Products)

IT Aluminophosphate zeolites
Beta zeolites
Faujasite-type zeolites
L zeolites
Mordenite-type zeolites
Y zeolites
Zeolite ZSM-12
RL: NUU (Other use, unclassified); USES (Uses)
(process for the removal of metal carbonyl from a gaseous stream)

OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L130 ANSWER 9 OF 20 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2000:15090 HCAPLUS Full-text

DOCUMENT NUMBER: 132:80476

TITLE: Preparation and macrostructure properties of medium-pore and large-pore molecular sieves and zeolites

INVENTOR(S): Sterte, Per Johan; Tosheva, Lubomira B.; Valtchev, Valentin P.; Mintova, Svetlana I.

PATENT ASSIGNEE(S): Exxon Chemical Patents Inc., USA

SOURCE: PCT Int. Appl., 47 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000000287	A1	20000106	WO 1999-US11234	1999 0520
			<--	
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
SE 9802303	A	19991230	SE 1998-2303	1998 0629
			<--	
SE 512222	C2	20000214		
CA 2335998	A1	20000106	CA 1999-2335998	1999 0520
			<--	
AU 9941952	A	20000117	AU 1999-41952	1999 0520
			<--	
AU 751641	B2	20020822		
EP 1098707	A1	20010516	EP 1999-925719	1999 0520
			<--	
R: BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE				
BR 9911699	A	20011204	BR 1999-11699	1999 0520
			<--	
JP 2002519276	T	20020702	JP 2000-556870	1999 0520
			<--	
IN 2000MN00787	A	20060106	IN 2000-MN787	2000 1227
			<--	
NO 2000006674	A	20010228	NO 2000-6674	2000 1228
			<--	
MX 2001000068	A	20011011	MX 2001-68	2001 0108
			<--	
BG 105186	A	20011130	BG 2001-105186	2001 0125
			<--	
PRIORITY APPLN. INFO.:			SE 1998-2303 A	1998 0629
			<--	
			WO 1999-US11234 W	

1999
0520

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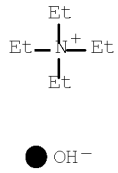
ED Entered STN: 07 Jan 2000

AB Porous inorg. materials with macrostructures characterized by controlled and regular sizes, shapes, and/or porosities, are prepared by (1) mixing a synthesis mixture (typically SiO2 and other metal oxides) with a porous organic ion exchanger and a directing agent (template), (2) conversion of the synthesis mixture to the porous inorg. material (typically under hydrothermal conditions), and (3) removal of the porous organic ion exchanger. The porous organic ion exchanger is preferably a strongly basic polymer-based anion-exchange resin or a porous macroreticular organic ion exchanger. The synthesis material typically has a mol. composition related to X2O3:(n)YO2, in which X is a trivalent element (e.g., Al, Ga, Zn, Fe, and/or B), Y is a tetravalent element (e.g., Si, Sn and/or Ge), and n >10. The final material is a large-pore or medium-pore mol. sieve or zeolite (e.g., LTL, FAU, MOR, BETA, MFI, MEL, MTW, MMT, MFS, FER, and TON, A, X, Y, ZSM-5, ZSM-11, ZSM-22, silicalite 1, and silicalite 2).

IT 77-98-5, Tetraethylammonium hydroxide
RL: NUU (Other use, unclassified); USES (Uses)
(template, synthesis solution containing; preparation and macrostructure properties of medium-pore and large-pore mol. sieves and zeolites)

RN 77-98-5 HCAPLUS

CN Ethanaminium, N,N,N-triethyl-, hydroxide (1:1) (CA INDEX NAME)



IC ICM B01J047-00
ICS B01J020-18; B01J020-08; B01J020-10; B01J029-06; B01J031-08

CC 49-4 (Industrial Inorganic Chemicals)
Section cross-reference(s): 51

ST macrostructure porous metal oxide prepn; aluminosilicate prepn porous macrostructure; zeolite prepn porous macrostructure; mol sieve prepn porous macrostructure

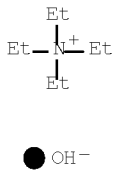
IT A zeolites
Beta zeolites
Faujasite-type zeolites
Ferrierite-type zeolites
L zeolites
Mordenite-type zeolites
Silicalites (zeolites)
X zeolites
Y zeolites
Zeolite ZSM-11
Zeolite ZSM-12
Zeolite ZSM-22
Zeolite ZSM-23
Zeolite ZSM-5
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and macrostructure properties of medium-pore and large-pore mol. sieves and zeolites)

IT 56-34-8, Tetraethylammonium chloride 77-98-5, Tetraethylammonium hydroxide 4499-86-9, Tetrapropylammonium hydroxide 10424-65-4, Tetramethylammonium hydroxide pentahydrate

RL: NUU (Other use, unclassified); USES (Uses)
(template, synthesis solution containing; preparation and macrostructure properties of medium-pore and large-pore mol. sieves and zeolites)

OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L130 ANSWER 10 OF 20 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1998:183556 HCAPLUS Full-text
DOCUMENT NUMBER: 128:199985
ORIGINAL REFERENCE NO.: 128:39377a,39380a
TITLE: Synthesis and characterization of chromo, ferro, mangano and vanadio silicates with MTW structure
AUTHOR(S): Correa, Maria Luiza S.; Wallau, Martin; Schuchardt, Ulf
CORPORATE SOURCE: Instituto de Quimica, Universidade Federal da Bahia, Salvador-BA, 40170-290, Brazil
SOURCE: Studies in Surface Science and Catalysis (1997), 105A(Progress in Zeolite and Microporous Materials, pt. A), 277-284
CODEN: SSCTDM; ISSN: 0167-2991
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 28 Mar 1998
AB The preparation of metallosilicates with MTW structure with pores consisting of 12-membered rings and pore openings of 5.5 + 5.9 Å in the presence of the redox metals Cr, Fe, Mn and V is described. The incorporation of Cr(III), Fe(III) and V(IV) in the lattice was confirmed by physicochem. characterization. In the Mn-silicate, the major part of the Mn cations was present as extraframework manganese oxide. After the calcination, oxidation to Cr(V) and Cr(VI), V(V) and Mn(VII) occurred while for the Fe-silicate the formation of extraframework iron oxide was observed The metallosilicates were tested as catalysts for cyclohexane oxidation with aqueous H2O2 or tert-butylhydroperoxide. Cr, V and Mn MTW showed good activities, which increased in the absence of water, indicating that the metallosilicates are hydrophilic.
IT 77-98-5, Tetraethylammonium hydroxide
RL: NUU (Other use, unclassified); USES (Uses)
(template for preparation of preparation of transition metal silicates with porous MTW structure as cyclohexane oxidation catalysts)
RN 77-98-5 HCAPLUS
CN Ethanaminium, N,N,N-triethyl-, hydroxide (1:1) (CA INDEX NAME)



CC 78-5 (Inorganic Chemicals and Reactions)
Section cross-reference(s): 24, 67
IT Zeolite ZSM-12
RL: CAT (Catalyst use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(metallosilicate; preparation of transition metal silicates with porous MTW structure as cyclohexane oxidation catalysts)
IT Oxidation catalysts

(preparation of transition metal silicates with porous MTW structure as cyclohexane oxidation catalysts)

IT Ferrisilicate zeolites
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation of transition metal silicates with porous MTW structure as cyclohexane oxidation catalysts)

IT Zeolites (synthetic), preparation
RL: CAT (Catalyst use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(vanadosilicate; preparation of transition metal silicates with porous MTW structure as cyclohexane oxidation catalysts)

IT 638-38-0, Manganese(II) acetate 7631-86-9, Silica, reactions 10028-22-5, Ferric sulfate 13548-38-4, Chromium(III) nitrate 27774-13-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(for preparation of preparation of transition metal silicates with porous MTW structure as cyclohexane oxidation catalysts)

IT 77-98-5, Tetraethylammonium hydroxide
RL: NUU (Other use, unclassified); USES (Uses)
(template for preparation of preparation of transition metal silicates with porous MTW structure as cyclohexane oxidation catalysts)

IT 110-82-7, Cyclohexane, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(transition metal silicates with porous MTW structure as cyclohexane oxidation catalysts)

IT 108-93-0P, Cyclohexanol, preparation 108-94-1P, Cyclohexanone, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(transition metal silicates with porous MTW structure as cyclohexane oxidation catalysts)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L130 ANSWER 11 OF 20 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1997:101796 HCAPLUS Full-text
DOCUMENT NUMBER: 126:108094
ORIGINAL REFERENCE NO.: 126:20815a,20818a
TITLE: Copper-silver zeolite catalysts for treatment of exhaust gases
INVENTOR(S): Kharas, Karl C. C.
PATENT ASSIGNEE(S): Asec Manufacturing Company, USA
SOURCE: PCT Int. Appl., 30 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9640418	A1	19961219	WO 1996-US9026	19960606
			<--	
W: JP				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5968466	A	19991019	US 1996-653836	19960528
			<--	

EP 830202 A1 19980325 EP 1996-918145
1996
0606
<--
EP 830202 B1 19991201
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI
JP 10510468 T 19981013 JP 1996-501444
1996
0606
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JP 3133075 B2 20010205 JP 1997-501444
1996
0606
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PRIORITY APPLN. INFO.: US 1995-477225 A
1995
0607
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US 1996-653836 A
1996
0528
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WO 1996-US9026 W
1996
0606
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ED Entered STN: 13 Feb 1997

AB A process for the removal of carbon monoxide, hydrocarbons, and nitrogen oxides in an oxidizing exhaust gas comprises contacting the exhaust gas with a catalyst comprising a crystalline zeolite having the following characteristics: (a) a Si/Al atomic ratio 5-100; (b) a pore size in the range of 0.5-1.3 nm; (c) essentially no octahedral aluminum detectable by 27Al NMR spectroscopy; (d) a sodium ion exchange capacity, with regard to total aluminum content, of greater than 75 %; (e) a copper content in the range of 0.5-12 weight%; and (f) a silver content in the range 0.25-20 weight%.

IT 1344-28-1, Aluminum oxide (Al2O3), uses 7631-86-9, Silica, uses
RL: CAT (Catalyst use); USES (Uses)
(copper-silver zeolite catalysts for treatment of exhaust gases)

RN 1344-28-1 HCAPLUS
CN Aluminum oxide (Al2O3) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 7631-86-9 HCAPLUS
CN Silica (CA INDEX NAME)

IC ICM B01D053-94
ICS B01J029-06

CC 59-3 (Air Pollution and Industrial Hygiene)

IT Beta zeolites
Catalysts
Ferrierite-type zeolites
Zeolite ZSM-11
Zeolite ZSM-12
Zeolite ZSM-22
Zeolite ZSM-35
Zeolite ZSM-5
Zeolites (synthetic), uses
RL: CAT (Catalyst use); USES (Uses)

(copper-silver zeolite catalysts for treatment of exhaust gases)
IT 1314-23-4, Zirconia, uses 1344-28-1, Aluminum oxide (Al2O3), uses 7440-22-4, Silver, uses 7440-50-8, Copper, uses 7631-86-9, Silica, uses 13463-67-7, Titania, uses
RL: CAT (Catalyst use); USES (Uses)
(copper-silver zeolite catalysts for treatment of exhaust gases)
OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L130 ANSWER 12 OF 20 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1997:44583 HCAPLUS Full-text
DOCUMENT NUMBER: 126:62469
ORIGINAL REFERENCE NO.: 126:12185a,12188a
TITLE: Conversion of heavy hydrocarbon feeds to low-boiling fractions by dual-stage catalytic hydrocracking
PATENT ASSIGNEE(S): Shell Internationale Research Maatschappij B. V., Neth.
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08283748	A	19961029	JP 1995-346017	1995 1211 <--
IN 192251	A1	20040327	IN 1995-MA1562	1995 1129 <--
CN 1131693	A	19960925	CN 1995-120586	1995 1211 <--
CN 1050626	C	20000322		
PRIORITY APPLN. INFO.:			EP 1994-203627 A	1994 1213 <--
			GB 1995-4515 A	1995 0307 <--

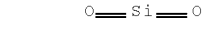
ED Entered STN: 22 Jan 1997
AB The title process comprises contacting heavy hydrocarbon feeds with a 1st hydrocracking catalyst containing Group VI and VIII metals on zeolites at 250-500°, (5-30)x106 Pa and 0.1-10 h-1 liquid space velocity, distilling the hydrocracked products to sep. the fractions (b. 0-160°) and other fractions (b. ≥200°), and further contacting the fractions (b. 0-160°) with a 2nd 1st hydrocracking catalyst containing ZSM-5 or ZSM 12 zeolites at 250-450°, (5-30)x106 Pa and 0.5-5 h-1 liquid space velocity to obtain light fractions containing LPG and C3-4 hydrocarbons, etc. in a 2nd stage. Preferably, the zeolite catalysts have an average pore diameter of 0.4-0.8 nm.

IC ICM C10G065-10
ICS B01J023-40; B01J023-74; B01J029-10; C07B061-00; C10G047-20
CC 51-4 (Fossil Fuels, Derivatives, and Related Products)
IT Beta zeolites
Ferrierite-type zeolites
Zeolite ZSM-12
Zeolite ZSM-5
RL: CAT (Catalyst use); USES (Uses)
(for conversion of heavy hydrocarbon feeds to low-boiling fractions by dual-stage catalytic hydrocracking)
OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

L130 ANSWER 13 OF 20 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1993:632986 HCAPLUS Full-text
DOCUMENT NUMBER: 119:232986
ORIGINAL REFERENCE NO.: 119:41405a,41408a
TITLE: Heat- and acid-resistant inorganic fibers and their manufacture for waste gas treatment
INVENTOR(S): Fukuda, Juji; Yokoyama, Koichi; Kato, Yasuyoshi
PATENT ASSIGNEE(S): Babcock Hitachi Kk, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05221695	A	19930831	JP 1992-47839	19920204
			<--	
JP 3138312	B2	20010226		
PRIORITY APPLN. INFO.:			JP 1992-47839	19920204
			<--	

ED Entered STN: 27 Nov 1993
AB The fibers consist of alkaline and/or Al oxide -containing inorg. fibers coated with a film having thickness 0.05-0.5 μm and comprising TiO2 particles having average grain size . ltoreq.0.1 .mu.m and are fired at 500-800°. The fibers are manufactured by impregnating or coating the above inorg. fibers with a colloidal titania solution, drying the materials, firing the materials at 500-800°, and optionally, impregnating or coating the fired materials with a mixture containing colloidal titania or colloidal silica and oxide particles having grain size 0.1-1.0 μm, drying the materials, and firing. The fibers are suitable as catalyst supports for denitration of acidic waste gases.
IT 7631-86-9, Silica, miscellaneous
RL: MSC (Miscellaneous)
(colloidal, coating with, of inorg. fibers coated with titania, heat- and acid-resistant, for waste gas treatment)
RN 7631-86-9 HCAPLUS
CN Silica (CA INDEX NAME)



IT 1344-28-1, Alumina, miscellaneous
RL: MSC (Miscellaneous)

(inorg. fibers containing, coated with titania, heat- and acid-resistant, for waste gas treatment)
RN 1344-28-1 HCAPLUS
CN Aluminum oxide (Al2O3) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IC ICM C03C025-02
ICS B01D053-36
ICA B01J021-16; B01J035-06
CC 59-4 (Air Pollution and Industrial Hygiene)
ST inorg fiber titania catalyst support; alk oxide fiber catalyst support; alumina fiber manuf catalyst support; waste gas treatment inorg fiber
IT Glass fibers, miscellaneous
Synthetic fibers
RL: MSC (Miscellaneous)
(containing alkaline and/or aluminum oxide, coating of, with titania, heat- and acid-resistant, for waste gas treatment)
IT Coating materials
(titania, for inorg. fibers containing alkaline and/or aluminum oxide, heat- and acid-resistant, for waste gas treatment)
IT 13463-67-7, Titania, uses
RL: USES (Uses)
(coating with, of inorg. fibers containing alkaline and/or aluminum oxide, heat- and acid-resistant, for waste gas treatment)
IT 7631-86-9, Silica, miscellaneous
RL: MSC (Miscellaneous)
(colloidal, coating with, of inorg. fibers coated with titania, heat- and acid-resistant, for waste gas treatment)
IT 1305-78-8, Calcium oxide (CaO), miscellaneous 1344-28-1, Alumina, miscellaneous
RL: MSC (Miscellaneous)
(inorg. fibers containing, coated with titania, heat- and acid-resistant, for waste gas treatment)

L130 ANSWER 14 OF 20 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1992:635625 HCAPLUS Full-text
DOCUMENT NUMBER: 117:235625
ORIGINAL REFERENCE NO.: 117:40755a,40758a
TITLE: Preparation of urethane rubber moldings having foam cores and compact skins without using chlorofluorohydrocarbons
INVENTOR(S): Horn, Peter; Hoelderich, Wolfgang; Taddey, Rudolf; Tintelnot, Dieter
PATENT ASSIGNEE(S): BASF A.-G., Germany
SOURCE: Eur. Pat. Appl., 24 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 482476	A2	19920429	EP 1991-117554	19911015
			<--	
EP 482476	A3	19920708		
EP 482476	B1	19970521		
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE				
DE 4034082	A1	19920430	DE 1990-4034082	19901015

1026
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US 5110834 A 19920505 US 1991-770382
1991
1003
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AT 153357 T 19970615 AT 1991-117554
1991
1015
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ES 2100918 T3 19970701 ES 1991-117554
1991
1015
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JP 04285621 A 19921009 JP 1991-274417
1991
1023
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CA 2054170 A1 19920427 CA 1991-2054170
1991
1024
<--
CA 2054170 C 19961203
PRIORITY APPLN. INFO.: DE 1990-4034082 A
1990
1026
<--
ED Entered STN: 13 Dec 1992
AB The tile moldings are prepared by polymerizing polyisocyanates, high-mol. weight compds. bearing ≥2 active H atoms, and, optionally, chain extenders in the presence of blowing agents, catalysts, and crystalline microporous mol. sieves (void inlet size <1.3 nm) from metal oxides or phosphates. Reaction-injection molding of 100 g mixture of glycerol 13.5:86.5 polyethylene-polypropylene glycol (I) ether (OH number 35) 56.25, glycerol 18.5:81.5 I ether (OH number 29) 10.40, polyoxypropylated ethylenediamine (OH number 768) 19.80, triethylenediamine 0.33, a silicone stabilizer 0.05, a dispersant 0.1, mordenite (H form, void diameter 0.65 + 0. 7 nm) 9.9, pigment paste 2.0, and H2O 0.5 parts and 50 g reaction product of MDI 55, crude MDI 45, and polypropylene glycol (OH number 250) 9 parts gave a flexible, elastic molding with a cellular core, a compact marginal zone, and a pore-free surface.
IC ICM C08J009-34
ICS C08G018-08; C08K007-26
ICI C08G018-08, C08G101-00
CC 39-9 (Synthetic Elastomers and Natural Rubber)
IT Zeolites, uses
RL: USES (Uses)
(ZSM 12, urethane rubber foam molding with compact skin in presence of)
OS.CITING REF COUNT: 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD (8 CITINGS)

L130 ANSWER 15 OF 20 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1985:475149 HCAPLUS Full-text
DOCUMENT NUMBER: 103:75149
ORIGINAL REFERENCE NO.: 103:12051a,12054a
TITLE: Preparation of porous titanium dioxide fibers by unidirectional freezing of gel
AUTHOR(S): Maki, Toshio; Teranishi, Yasuo; Kokubo, Tadashi; Sakka, Sumio
CORPORATE SOURCE: Inst. Chem. Res., Kyoto Univ., Uji, 611, Japan
SOURCE: Yogyo Kyokaishi (1985), 93(7), 387-93
CODEN: YGKSA4; ISSN: 0372-7718
DOCUMENT TYPE: Journal
LANGUAGE: Japanese
ED Entered STN: 07 Sep 1985

AB TiO2 fibers were prepared by freezing a TiO2 hydrogel which was prepared from hydrolyzed and dialyzed TiCl4. A bundle of porous TiO2 fibers of about 10 cm in length and 20-100 μ in diameter was obtained. The cross section of the fibers was polygonal. Their diameter increased with increasing distance from the bottom of the cylinder and with decreasing lowering rate of the cylinder. Both the freezing rate and the thermal gradient at the frozen front during unidirectional freezing decreased with increasing distance from the bottom of the cylinder. The diameter of the fibers was related to the freezing rate and the thermal gradient. The approx. composition of the fibers dried at 120° was TiO2.0.3H2O. The fibers contained numerous fine pores with diams. <6.0 nm and predominantly at 3.0 nm. The sp. surface area was 350 cm2/g. The fibers also contained small anatase crystals, which were grown with an increase of heating temperature and then transformed to rutile crystals at .apprx.670°. The high degree of polymerization of TiO2 hydrogel and cellular growth of ice crystals from the gel are essential for obtaining long TiO2 fibers by unidirectional freezing of gel.
CC 57-2 (Ceramics)
IT Synthetic fibers
RL: SPN (Synthetic preparation); PREP (Preparation)
(titania, hydrogel freezing in preparation of, properties in relation to)
OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

L130 ANSWER 16 OF 20 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1976:410632 HCAPLUS Full-text
DOCUMENT NUMBER: 85:10632
ORIGINAL REFERENCE NO.: 85:1671a,1674a
TITLE: High-pressure mercury-intrusion porosimeter for determining the pore structure of porous adsorbents in pressures to 6000 bars
AUTHOR(S): Unger, K.; Schadow, E.; Fischer, H.
CORPORATE SOURCE: Eduard-Zintl-Inst. Anorg. Chem., Tech. Hochsch. Darmstadt, Darmstadt, Fed. Rep. Ger.
SOURCE: Zeitschrift fuer Physikalische Chemie (Muenchen, Germany) (1976), 99(4-6), 245-56
CODEN: ZPCFAX; ISSN: 0044-3336
DOCUMENT TYPE: Journal
LANGUAGE: German
ED Entered STN: 12 May 1984
AB A Hg-intrusion porosimeter is described, which houses 2 autoclaves, which develop pressures to 4000 and 6000 bars, resp. The intruded volume of Hg is measured with a capacitance bridge. Three Heise-Bourdon gauges are used for precise pressure reading. Penetration and retraction measurements were made for a SiO2 sample, and the results were compared with N sorption measurements.
CC 66-3 (Surface Chemistry and Colloids)
Section cross-reference(s): 47
ST mercury porosimeter high pressure
IT 7631-86-9, properties
RL: PRP (Properties)
(porosity of, mercury porosimeter for study of)
OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

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L130 ANSWER 17 OF 20 INSPEC (C) 2009 IET on STN
ACCESSION NUMBER: 2003:7634316 INSPEC Full-text
DOCUMENT NUMBER: A2003-13-6146-041
TITLE: Formation of silicalite-1 hollow spheres by the self-assembly of nanocrystals
AUTHOR: Naik, S.P.; Chiang, A.S.T.; (Dept. of Chem. & Mater. Eng., Nat. Central Univ., Chung-li, Taiwan), Thompson, R.W.; Huang, F.C.

SOURCE: Chemistry of Materials (Feb. 2003), vol.15, no.3, p. 787-92, 37 refs.
CODEN: CMATEX, ISSN: 0897-4756
SICI: 0897-4756(200302)15:3L.787:FSHS;1-Z
Price: 0897-4756/03/$25.00
Published by: American Chem. Soc, USA
DOCUMENT TYPE: Journal
TREATMENT CODE: Experimental
COUNTRY: United States
LANGUAGE: English

AB A simple approach is reported for the preparation of hollow spheres with a 10-20-nm-thick shell of silicalite-1 nanocrystals. The nanocrystals were produced by the steaming of silicalite-1 nanoprecursors (NPs), collected with the help of surfactant from a clear synthesis solution immediately following the induction period. The nanocrystals produced were ≈10-20 nm with a BET surface area of 440-470 m2/g and an external surface area >112 m2/g. A water adsorption isotherm confirmed that the nanocrystals were hydrophobic in nature. These nanocrystals self-assembled into hollow spheres of 100-300-nm diameter when ultrasonicated in ammoniac ethanol

PY 2003
CT adsorption; nanostructured materials; self-assembly; silicon compounds; zeolites
PHP size 1.0E-08 to 2.0E-08 m; size 1.0E-07 to 3.0E-07 m
AN 2003:7634316 INSPEC DN A2003-13-6146-041 Full-text
CC A6146 Structure of solid clusters, nanoparticles, and nanostructured materials; A6845D Adsorption and desorption kinetics; evaporation and condensation
CT adsorption; nanostructured materials; self-assembly; silicon compounds; zeolites
ST hollow spheres; silicalite-1 nanocrystals; surfactant; BET surface area; external surface area; water adsorption isotherm; self-assembly; zeolites; 10 to 20 nm; 100 to 300 nm
CHI Si ss, O ss
PHP size 1.0E-08 to 2.0E-08 m; size 1.0E-07 to 3.0E-07 m
ET O

L130 ANSWER 18 OF 20 INSPEC (C) 2009 IET on STN
ACCESSION NUMBER: 2004:8110540 INSPEC Full-text
DOCUMENT NUMBER: A2004-21-6148-009
TITLE: Selective synthesis of double-wall carbon nanotubes by CCVD of acetylene using zeolite supports
AUTHOR: Hiraoka, T.; Kawakubo, T.; Kimura, J.; Taniguchi, R.; (Dept. of Chem., Nagoya Univ., Japan), Okamoto, A.; Okazaki, T.; Sugai, T.; Ozeki, Y.; Yoshikawa, M.; Shinohara, H.
SOURCE: Chemical Physics Letters (15 Dec. 2003), vol.382, no.5-6, p. 679-85, 25 refs.
CODEN: CHPLBC, ISSN: 0009-2614
SICI: 0009-2614(20031215)382:5/6L.679:SSDW;1-P
Price: 0009-2614/03/$30.00
Published by: Elsevier, Netherlands
DOCUMENT TYPE: Journal
TREATMENT CODE: Experimental
COUNTRY: Netherlands
LANGUAGE: English

AB Double-wall carbon nanotubes (DWNTs) have been synthesized in high-yield (>80%) by catalytic chemical vapor deposition (CCVD) of acetylene over well-dispersed metal particles (typically Co/Fe binary system) embedded in heat-resistant zeolites at temperatures above 900 °C. The synthetic yield of DWNTs has been sensitively affected by reaction conditions of the CCVD such as zeolite support materials, the sintering of the metal particles, hydrocarbon sources and reaction temperatures. High-resolution transmission electron microscopy together with Raman spectroscopy shows that the outer tube diameter varies from 3 to 6 nm with inner-outer tube separations of 0.36-0.37 nm, which is much larger than the interlayer distance of graphite (0.335 nm)

PY 2003
CT carbon nanotubes; catalysis; catalysts; chemical vapour

deposition; cobalt; graphite; iron; organic compounds; Raman spectra; reaction kinetics; sintering; transmission electron microscopy; zeolites
PHP temperature 1.17E+03 K; size 3.6E-10 to 3.7E-10 m; size 3.35E-10 m; size 3.0E-09 to 6.0E-09 m
AN 2004:8110540 INSPEC DN A2004-21-6148-009 Full-text
CC A6148 Structure of fullerenes and fullerene-related materials; A8265J Heterogeneous catalysis at surfaces and other surface reactions; A6842 Surface phase transitions and critical phenomena; A3320F Raman and Rayleigh molecular spectra; A8220 Chemical kinetics
CT carbon nanotubes; catalysis; catalysts; chemical vapour deposition; cobalt; graphite; iron; organic compounds; Raman spectra; reaction kinetics; sintering; transmission electron microscopy; zeolites
ST double-wall carbon nanotubes; selective synthesis; CCVD; acetylene; DWNTs; catalytic chemical vapor deposition; well-dispersed metal particles; Co-Fe binary system; heat-resistant zeolites; synthetic yield; zeolite support materials; sintering; hydrocarbon source; reaction temperature; high-resolution transmission electron microscopy; Raman spectroscopy; graphite interlayer distance; inner-outer tube separations; 900 C; 0.36 to 0.37 nm; 0.335 nm; 3 to 6 nm; Co-Fe
CHI CoFe bin, Co bin, Fe bin
PHP temperature 1.17E+03 K; size 3.6E-10 to 3.7E-10 m; size 3.35E-10 m; size 3.0E-09 to 6.0E-09 m
ET Fe; Co; C

L130 ANSWER 19 OF 20 INSPEC (C) 2009 IET on STN
ACCESSION NUMBER: 2000:6780190 INSPEC Full-text
DOCUMENT NUMBER: A2001-02-0780-002
TITLE: Three-dimensional transmission electron microscopy: a novel imaging and characterization technique with nanometer scale resolution for materials science
AUTHOR: Koster, A.J.; Ziese, U.; Verkleij, A.J.; (Dept. of Molecular Cell Biol., Utrecht Univ., Netherlands), Janssen, A.H.; de Jong, K.P.
SOURCE: Journal of Physical Chemistry B (12 Oct. 2000), vol.104, no.40, p. 9368-70, 21 refs.
CODEN: JPCBFK, ISSN: 1089-5647
SICI: 1089-5647(20001012)104:40L.9368:TDTE;1-C
Price: 1089-5639/2000/$19.00
Published by: ACS, USA
DOCUMENT TYPE: Journal
TREATMENT CODE: Practical; Experimental
COUNTRY: United States
LANGUAGE: English
AB Three-dimensional transmission electron microscopy (3D-TEM), effectuated by multiple imaging of a sample combined with image analysis, offers a new approach in materials science to obtain 3D information of complex solid materials. Here we report first-of-its-kind results that have been obtained with zeolite materials. Virtual cross-sections and volume rendering of the 3D reconstruction of a metal/zeolite crystal (Ag/NaY) give unequivocal information on the location of the silver particles (10-40 nm in diameter). Virtual cross-sections of the 3D reconstruction of an acid-leached mordenite show the three-dimensional mesoporous channel system (3-20 nm in diameter) with a clarity and definition not seen before
PY 2000
CT image reconstruction; imaging; porous materials; transmission electron microscopy; zeolites
PHP size 3.0E-09 to 2.0E-08 m; size 1.0E-08 to 4.0E-08 m
AN 2000:6780190 INSPEC DN A2001-02-0780-002 Full-text
CC A0780 Electron and ion microscopes and techniques; A6116D Electron microscopy determinations of structures
CT image reconstruction; imaging; porous materials; transmission electron microscopy; zeolites

ST three-dimensional transmission electron microscopy; characterization technique; nanometer scale resolution; materials science; multiple imaging; image analysis; complex solid materials; zeolite materials; virtual cross-sections; volume rendering; 3D reconstruction; metal/zeolite crystal; Ag particles; acid-leached mordenite; three-dimensional mesoporous channel system; channel system diameter; particle locations; 3 to 20 nm; 10 to 40 nm; Ag
CHI Ag el
PHP size 3.0E-09 to 2.0E-08 m; size 1.0E-08 to 4.0E-08 m
ET D; Ag; Na*Y; Na sy 2; sy 2; Y sy 2; NaY; Na cp; cp; Y cp

L130 ANSWER 20 OF 20 INSPEC (C) 2009 IET on STN
ACCESSION NUMBER: 2000:6683559 INSPEC Full-text
DOCUMENT NUMBER: A2000-19-6470P-013
TITLE: Glass transition in sub-nanometer confinement
AUTHOR: Huwe, A.; Kremer, F.; Arndt, M.; (Sektion Phys., Leipzig Univ., Germany), Behrens, P.; Schwieger, W.; Ihlein, G.; Akdogan, O.; Schuth, F.
SOURCE: Dynamics in Small Confining Systems IV. Symposium, 1999, p. 115-23 of ix+372 pp., 36 refs.
Editor(s): Drake, J.M.; Grest, G.S.; Klafter, J.; Kopelman, R.
ISBN: 1 55899 449 1
Published by: Mater. Res Soc, Warrendale, PA, USA
Conference: Dynamics in Small Confining Systems IV. Symposium, Boston, MA, USA, 30 Nov.-3 Dec. 1998
DOCUMENT TYPE: Conference; Conference Article
TREATMENT CODE: Theoretical; Experimental
COUNTRY: United States
LANGUAGE: English
AB Broadband dielectric spectroscopy (10-2 Hz-109 Hz) is employed to study the molecular dynamics of low-molecular-weight glassforming liquids being confined to nanopores. For the H-bond forming liquid propylene glycol being confined to (uncoated and silanized) nanopores (pore size: 2.5 nm, 5.0 nm and 7.5 nm) a molecular dynamics is observed which is comparable to that of the bulk liquid. Due to surface effects in uncoated nanopores the relaxation time distribution is broadened on the long term side and the mean relaxation rate is decreased by about half a decade. This effect can be counterbalanced by lubricating the inner surfaces of the pores resulting in a relaxation rate which is slightly faster compared to the bulk liquid. For the H-bonded liquid ethylene glycol (EG) embedded in zeolites of different pore size and topology one observes a sharp transition from a single-molecule dynamics to that of a liquid depending on the coordination number of the confined molecules. While EG in silicalite (showing a single molecule relaxation) has four neighboring molecules, EG in zeolite beta or AlPO4-5 has a coordination number of five and behaves like a bulk liquid
PY 1999
CT dielectric losses; dielectric relaxation; glass transition; liquid structure; molecular dynamics method; nanostructured materials; porous materials; zeolites
PHP frequency 1.0E-02 to 1.0E+09 Hz; size 2.5E-09 m; size 5.0E-09 m; size 7.5E-09 m
AN 2000:6683559 INSPEC DN A2000-19-6470P-013 Full-text
CC A6470P Glass transitions; A7740 Dielectric loss and relaxation; A6125E Structure of molecular liquids; A6120J Computer simulation of static and dynamic liquid behaviour
CT dielectric losses; dielectric relaxation; glass transition; liquid structure; molecular dynamics method; nanostructured materials; porous materials; zeolites
ST glass transition; sub-nanometer confinement; broadband dielectric spectroscopy; molecular dynamics; low-molecular-weight glass-forming liquids; nanopore confined; H-bond forming liquid; propylene glycol; surface effects; uncoated nanopores; relaxation

time distribution; mean relaxation rate; ethylene glycol; embedded in zeolites; single-molecule dynamics; coordination number; confined molecules; length scale; dielectric loss; relaxation peak; sol-gel glass; effective medium theory; computer simulations; 1E-2 to 109 Hz; 2.5 nm; 5 nm; 7.5 nm

PHP frequency 1.0E-02 to 1.0E+09 Hz; size 2.5E-09 m; size 5.0E-09 m; size 7.5E-09 m

ET H; Al*O*P; AlPO4; Al cp; cp; P cp; O cp

FULL SEARCH HISTORY

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=> d his nofile

     (FILE 'HOME' ENTERED AT 13:37:29 ON 21 SEP 2009)

     FILE 'HCAPLUS' ENTERED AT 13:37:51 ON 21 SEP 2009
                E US20080035525/PN
L1            1 SEA SPE=ON  ABB=ON  PLU=ON  US20080035525/PN
                D ALL
                SEL RN
                SEL RN

     FILE 'REGISTRY' ENTERED AT 13:41:25 ON 21 SEP 2009
L2           13 SEA SPE=ON  ABB=ON  PLU=ON  (111-65-9/BI OR 11138-49-1/
                BI OR 1310-73-2/BI OR 1343-98-2/BI OR 142-82-5/BI OR
                14378-12-2/BI OR 26635-64-3/BI OR 31394-54-4/BI OR
                6484-52-2/BI OR 7440-06-4/BI OR 7631-86-9/BI OR
                77-98-5/BI OR 9004-67-5/BI)
                D SCA

     FILE 'STNGUIDE' ENTERED AT 13:42:27 ON 21 SEP 2009

     FILE 'REGISTRY' ENTERED AT 13:49:18 ON 21 SEP 2009
                E  11138-49-1/RN
L3            1 SEA SPE=ON  ABB=ON  PLU=ON  11138-49-1/RN
                D SCA
L4            0 SEA SPE=ON  ABB=ON  PLU=ON  L2 AND AL/ELS
L5            2 SEA SPE=ON  ABB=ON  PLU=ON  L2 AND SI/ELS
                D SCA
                E SILICON/ELS
                E SI/ELS
L6      1542251 SEA SPE=ON  ABB=ON  PLU=ON  SI/ELS
                E AL/ELS
L7       411374 SEA SPE=ON  ABB=ON  PLU=ON  AL/ELS

     FILE 'HCAPLUS' ENTERED AT 13:54:06 ON 21 SEP 2009
                D SCA L1
                E "ZEOLITE ZSM-12"/CT
                E E3+ALL
L8          644 SEA SPE=ON  ABB=ON  PLU=ON  "ZEOLITE ZSM-12"+MAX/CT/CT

                E MTW ZEOLITES/CT
L9          644 SEA SPE=ON  ABB=ON  PLU=ON  "MTW ZEOLITES"+MAX/CT
L10        1110 SEA SPE=ON  ABB=ON  PLU=ON  ZSM(A)12
                D KWIC
                E MTW/CT
                E E3+AKK
                E "MTW-TYPE ZEOLITES"/CT
                E MTW/CT 25
                E MTW/CT 25
L11         309 SEA SPE=ON  ABB=ON  PLU=ON  MTW+MAX/CT
L12         952 SEA SPE=ON  ABB=ON  PLU=ON  L8 OR L9 OR L11
                D L10 1000 KWIC
L13         991 SEA SPE=ON  ABB=ON  PLU=ON  L10(2A)ZEOL?
                D 900 KWIC
L14        1299 SEA SPE=ON  ABB=ON  PLU=ON  L12 OR L13
L15           1 SEA SPE=ON  ABB=ON  PLU=ON  L1 AND L14
                D SCA
                D ABS
L16        1399 SEA SPE=ON  ABB=ON  PLU=ON  .LTOREQ. 0,1 MM
                D KWIC
                D 1000 KWIC
L17        1399 SEA SPE=ON  ABB=ON  PLU=ON  .LTOREQ. 0.1 MM
L18        1399 SEA SPE=ON  ABB=ON  PLU=ON  L16 OR L17
L19           2 SEA SPE=ON  ABB=ON  PLU=ON  L18 AND L14
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                D SCA
L20         10184 SEA SPE=ON  ABB=ON  PLU=ON  SPECIFIC VOLUME
                D 300 KWIC
L21            43 SEA SPE=ON  ABB=ON  PLU=ON  L20(3A)30
L22            15 SEA SPE=ON  ABB=ON  PLU=ON  L20(3A)200
L23             1 SEA SPE=ON  ABB=ON  PLU=ON  L21 AND L22
                D KWIC
L24           118 SEA SPE=ON  ABB=ON  PLU=ON  MM3(W)G
                D 75 KWIC
L25             1 SEA SPE=ON  ABB=ON  PLU=ON  L24 AND (L21 OR L22)
                D KWIC
L26            21 SEA SPE=ON  ABB=ON  PLU=ON  .LTOREQ."4000 BAR" OR
                LTOREQ(2A)(4000(2A)BAR)
                D 15 KWIC
L27             0 SEA SPE=ON  ABB=ON  PLU=ON  L26 AND L18
L28             0 SEA SPE=ON  ABB=ON  PLU=ON  L26 AND L25
L29           222 SEA SPE=ON  ABB=ON  PLU=ON  "4000 BAR" OR (4000(2A)BAR)

L30             1 SEA SPE=ON  ABB=ON  PLU=ON  L29 AND L18
                D KWIC
L31          4526 SEA SPE=ON  ABB=ON  PLU=ON  (MERCURY OR HG)(2A)PORO?
                D 3000 KWIC
L32             2 SEA SPE=ON  ABB=ON  PLU=ON  L31 AND L29
                D SCA

     FILE 'REGISTRY' ENTERED AT 14:50:32 ON 21 SEP 2009
                E SILICA/CN
L33             1 SEA SPE=ON  ABB=ON  PLU=ON  SILICA/CN
                D SCA
                E ALUMINA/CN
L34             1 SEA SPE=ON  ABB=ON  PLU=ON  ALUMINA/CN
                D SCA
                E ?SILICON?/CNS
                E SILICON/CNS
L35        112706 SEA SPE=ON  ABB=ON  PLU=ON  ?SILICON?/CNS
L36             2 SEA SPE=ON  ABB=ON  PLU=ON  L2 AND L35
                D SCA
                E (?ALUMINUM? OR ?ALUMINIUM?)/CNS
L37        268804 SEA SPE=ON  ABB=ON  PLU=ON  (?ALUMINUM? OR ?ALUMINIUM?)
                /CNS
L38        215382 SEA SPE=ON  ABB=ON  PLU=ON  L37 NOT C/ELS
L39        213877 SEA SPE=ON  ABB=ON  PLU=ON  L38 AND NO RSD/FA

     FILE 'HCAPLUS' ENTERED AT 14:58:32 ON 21 SEP 2009
                E CRYSTAL SIZE/CT
                E CRYSTAL SIZES/CT

     FILE 'HCAPLUS' ENTERED AT 14:59:45 ON 21 SEP 2009

     FILE 'REGISTRY' ENTERED AT 15:00:25 ON 21 SEP 2009
                D SCA L3

     FILE 'HCAPLUS' ENTERED AT 15:00:39 ON 21 SEP 2009
L40          5251 SEA SPE=ON  ABB=ON  PLU=ON  L3
L41        468529 SEA SPE=ON  ABB=ON  PLU=ON  L5
L42       1522028 SEA SPE=ON  ABB=ON  PLU=ON  L35
L43        880935 SEA SPE=ON  ABB=ON  PLU=ON  L33 OR SILICA OR SIO2 OR
                O2SI
L44           579 SEA SPE=ON  ABB=ON  PLU=ON  L14 AND ((L41 OR L42 OR
                L43))
L45           133 SEA SPE=ON  ABB=ON  PLU=ON  L14(L)((L41 OR L42 OR
                L43))
L46               QUE SPE=ON  ABB=ON  PLU=ON  L3 OR L40 OR L34 OR
                (ALUMINUM OR ALUMINIUM OR AL)(A)(OXIDE OR O3) OR
                ALUMINA OR AL2O3
L47            71 SEA SPE=ON  ABB=ON  PLU=ON  L14(L)L46
L48            57 SEA SPE=ON  ABB=ON  PLU=ON  L45 AND L47
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L49         397 SEA SPE=ON  ABB=ON  PLU=ON  L14 AND L46
L50         318 SEA SPE=ON  ABB=ON  PLU=ON  L49 AND L44
L51           3 SEA SPE=ON  ABB=ON  PLU=ON  L23 OR L30 OR L32 OR L19
L52           2 SEA SPE=ON  ABB=ON  PLU=ON  L50 AND L51
L53           1 SEA SPE=ON  ABB=ON  PLU=ON  L48 AND L51
                D SCA
L54           1 SEA SPE=ON  ABB=ON  PLU=ON  L50 AND L20
                D KWIC
L55           2 SEA SPE=ON  ABB=ON  PLU=ON  L50 AND L18
                D QUE
L56           1 SEA SPE=ON  ABB=ON  PLU=ON  L50 AND (L26 OR L29)
                D KWIC
L57         158 SEA SPE=ON  ABB=ON  PLU=ON  L14 AND (?ALUMINUM? OR
                ?ALUMINIUIM? OR AL) AND (?SILICON? OR SI)
L58           0 SEA SPE=ON  ABB=ON  PLU=ON  L57 AND ((L18 OR L19 OR
                L20 OR L21 OR L22 OR L23 OR L24 OR L25 OR L26 OR L27
                OR L28 OR L29 OR L30 OR L31 OR L32))
                D SCA L1

     FILE 'REGISTRY' ENTERED AT 15:21:45 ON 21 SEP 2009
                D SCA L2
L59           1 SEA SPE=ON  ABB=ON  PLU=ON  L2 AND C8 H20 N . H O/MF
                D RN
L60           1 SEA SPE=ON  ABB=ON  PLU=ON  77-98-5/RN

     FILE 'HCAPLUS' ENTERED AT 15:23:22 ON 21 SEP 2009
L61        2413 SEA SPE=ON  ABB=ON  PLU=ON  L60

     FILE 'REGISTRY' ENTERED AT 15:23:45 ON 21 SEP 2009
                SET SMARTSELECT ON
L62             SEL PLU=ON  L60 1- NAME :       1 TERM
                SET SMARTSELECT OFF

     FILE 'HCAPLUS' ENTERED AT 15:23:46 ON 21 SEP 2009
L63        1997 SEA SPE=ON  ABB=ON  PLU=ON  L62
L64        2625 SEA SPE=ON  ABB=ON  PLU=ON  L61 OR L63
L65          29 SEA SPE=ON  ABB=ON  PLU=ON  L64 AND L14

     FILE 'REGISTRY' ENTERED AT 15:24:54 ON 21 SEP 2009
L66          17 SEA SPE=ON  ABB=ON  PLU=ON  77-98-5/CRN

     FILE 'HCAPLUS' ENTERED AT 15:25:30 ON 21 SEP 2009
L67          11 SEA SPE=ON  ABB=ON  PLU=ON  L66
L68           0 SEA SPE=ON  ABB=ON  PLU=ON  L67 AND L14
L69           0 SEA SPE=ON  ABB=ON  PLU=ON  L65 AND TEMPLET?
                E POROSITY/CT
                E E3+ALL
L70       43855 SEA SPE=ON  ABB=ON  PLU=ON  POROSITY/CT
L71           2 SEA SPE=ON  ABB=ON  PLU=ON  L65 AND L70
L72       42059 SEA SPE=ON  ABB=ON  PLU=ON  (PORE OR RADIUS OR RADII
                OR DIAM?) AND ((4 OR 5 OR 6 OR 7 OR 8 OR 9 OR 10)(2A)(N
                M OR NANOMET? OR (NANO(W)(METER OR METRE OR M))))
                D 3000 KWIC
L73          26 SEA SPE=ON  ABB=ON  PLU=ON  L72 AND L14
L74           0 SEA SPE=ON  ABB=ON  PLU=ON  L72 AND L65
L75           8 SEA SPE=ON  ABB=ON  PLU=ON  L73 AND L50
                D KWIC
L76           6 SEA SPE=ON  ABB=ON  PLU=ON  L75 AND L13
                D KWIC
                D KWIC
                D 2 KWIC
                D KWIC 3
L77          10 SEA SPE=ON  ABB=ON  PLU=ON  (L51 OR L52 OR L53 OR L54
                OR L55 OR L56) OR L71 OR L76
L78             QUE SPE=ON  ABB=ON  PLU=ON  PY=<2003 NOT P/DT
L79             QUE SPE=ON  ABB=ON  PLU=ON  (PY=<2003 OR PRY=<2003 OR
                AY=<2003 OR MY=<2003 OR REVIEW/DT) AND P/DT
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L80           6 SEA SPE=ON  ABB=ON  PLU=ON  L77 AND (L78 OR L79)
                D SCA
L81          55 SEA SPE=ON  ABB=ON  PLU=ON  L65 OR L73
L82             QUE SPE=ON  ABB=ON  PLU=ON  POROS? OR POROUS?
L83          55 SEA SPE=ON  ABB=ON  PLU=ON  L14 AND L81
L84          15 SEA SPE=ON  ABB=ON  PLU=ON  L83 AND L82
L85           6 SEA SPE=ON  ABB=ON  PLU=ON  L84 AND L64
L86           1 SEA SPE=ON  ABB=ON  PLU=ON  L83 AND ((L18 OR L19 OR
                L20 OR L21 OR L22 OR L23 OR L24 OR L25 OR L26 OR L27
                OR L28 OR L29 OR L30 OR L31 OR L32))
                D SCA
L87           6 SEA SPE=ON  ABB=ON  PLU=ON  L85 OR L86
L88          28 SEA SPE=ON  ABB=ON  PLU=ON  L83 AND (L70 OR L72)
                D 20 KWIC
L89          32 SEA SPE=ON  ABB=ON  PLU=ON  (L85 OR L86 OR L87 OR L88)

L90          14 SEA SPE=ON  ABB=ON  PLU=ON  L89 AND (L78 OR L79)
L91          16 SEA SPE=ON  ABB=ON  PLU=ON  L90 OR L80
                SAV TEMP L91 JOH606HCP/A

     FILE 'INSPEC' ENTERED AT 16:15:18 ON 21 SEP 2009
L92        5922 SEA SPE=ON  ABB=ON  PLU=ON  ZEOLIT?
L93           8 SEA SPE=ON  ABB=ON  PLU=ON  ZSM(A)12
                D 7 KWIC
L94          41 SEA SPE=ON  ABB=ON  PLU=ON  MTW
L95         539 SEA SPE=ON  ABB=ON  PLU=ON  ZSM
L96           8 SEA SPE=ON  ABB=ON  PLU=ON  "ZSM-12"
                E ZEOTLITE/CT 25
                E ZEOTLITES/CT
                E ZEOLITES/CT
                E E3+ALL
L97      183362 SEA SPE=ON  ABB=ON  PLU=ON  ZEOLITES+ALL/CT
L98          29 SEA SPE=ON  ABB=ON  PLU=ON  L62
L99           7 SEA SPE=ON  ABB=ON  PLU=ON  L97 AND L98
                D KWIC
L100       2512 SEA SPE=ON  ABB=ON  PLU=ON  ZEOLITES/CT
L101      75830 SEA SPE=ON  ABB=ON  PLU=ON  NANOSTRUCTURED MATERIALS/CT
L102      28452 SEA SPE=ON  ABB=ON  PLU=ON  POROUS MATERIALS/CT
L103        150 SEA SPE=ON  ABB=ON  PLU=ON  MOLECULAR SIEVES/CT
L104         25 SEA SPE=ON  ABB=ON  PLU=ON  L100 AND L101 AND (L102 OR
                L103)
L105         75 SEA SPE=ON  ABB=ON  PLU=ON  L93 OR L94 OR L96 OR L98
                OR L99
L106        100 SEA SPE=ON  ABB=ON  PLU=ON  L105 OR L104
L107         29 SEA SPE=ON  ABB=ON  PLU=ON  L106 AND L98
L108          0 SEA SPE=ON  ABB=ON  PLU=ON  4-10E-9/SZ
L109      23705 SEA SPE=ON  ABB=ON  PLU=ON  4.0E-09 M - 10.0E-09 M
                /SIZ
L110          0 SEA SPE=ON  ABB=ON  PLU=ON  L107 AND L109
L111         12 SEA SPE=ON  ABB=ON  PLU=ON  L100 AND L109
                D KWIC
                D KWIC 6
                D KWIC 12
L112          0 SEA SPE=ON  ABB=ON  PLU=ON  L111 AND L96
L113          3 SEA SPE=ON  ABB=ON  PLU=ON  L111 AND L101
L114          4 SEA SPE=ON  ABB=ON  PLU=ON  L111 AND L102
                D 4 KWIC
                E ALUMINUM COMPOUNDS/CT
L115      93615 SEA SPE=ON  ABB=ON  PLU=ON  "ALUMINUM COMPOUNDS"+ALL/CT
                E "SILCON COMPOUNDS"/CT
                E "SILICON COMPOUNDS"/CT
L116     347119 SEA SPE=ON  ABB=ON  PLU=ON  "SILICON COMPOUNDS"+ALL/CT
L117          0 SEA SPE=ON  ABB=ON  PLU=ON  L111 AND L115 AND L116
                E SI/ET
L118     438774 SEA SPE=ON  ABB=ON  PLU=ON  SI/ET
                E AL/ET
L119     324336 SEA SPE=ON  ABB=ON  PLU=ON  AL/ET
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L120         12 SEA SPE=ON  ABB=ON  PLU=ON  L113 OR L114 OR L111
L121          2 SEA SPE=ON  ABB=ON  PLU=ON  L120 AND L118 AND L119
                D KWIC
                D KWIC 2
L122          6 SEA SPE=ON  ABB=ON  PLU=ON  L111 AND (L101 OR L102 OR
                L103)
                D 4 KWIC
L123          0 SEA SPE=ON  ABB=ON  PLU=ON  L96 AND L109
L124          0 SEA SPE=ON  ABB=ON  PLU=ON  L93 AND L109
L125          0 SEA SPE=ON  ABB=ON  PLU=ON  L94 AND L109
L126          3 SEA SPE=ON  ABB=ON  PLU=ON  L95 AND L109
L127         13 SEA SPE=ON  ABB=ON  PLU=ON  L120 OR L121 OR (L122 OR
                L123 OR L124 OR L125 OR L126)
L128          4 SEA SPE=ON  ABB=ON  PLU=ON  L127 AND (L78 OR L79)
                D SCA
                D KWIC
L129          0 SEA SPE=ON  ABB=ON  PLU=ON  L128 AND L98
                SAV TEMP L129 JOH606INSPEC/A
                SAV TEMP L128 JOH606INSPEC/A

     FILE 'STNGUIDE' ENTERED AT 16:48:03 ON 21 SEP 2009
                D QUE L91
                D QUE L128

     FILE 'HCAPLUS, INSPEC' ENTERED AT 16:51:17 ON 21 SEP 2009
L130         20 DUP REM L91 L128 (0 DUPLICATES REMOVED)
                     ANSWERS '1-16' FROM FILE HCAPLUS
                     ANSWERS '17-20' FROM FILE INSPEC
                D L130 1-16 IBIB ED ABS HITSTR HITIND
                D L130 17-20 IBIB AB HIT IND
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